LIGHTING AND ELECTRICAL

Lighting Systems: General

All vehicles shall be equipped with lamps that provide adequate illumination of the roadway and enhance conspicuity of motor vehicles so that their presence is perceived and signals understood, in daylight, darkness and other conditions of reduced visibility.

The location, number and color of all exterior lamps and signals shall be in conformance with current United States department of transportation, federal motor vehicle safety regulations found in 49 CFR part 571 and in section 698 of the Michigan vehicle code, 1949 PA 300, MCL 257.698.

Headlights *MCLA* 257.684, 257.685, 257.695, 257.698

YELLOW: Front high beams inoperable YELLOW: One low beam inoperative RED: Both low beams are inoperative

Turn Signal Lamps and Indicators

The turn signal operating unit on each vehicle shall be self-canceling by steering wheel rotation and capable of cancellation by manually operated control. FMVSS 571.108 SAE 589 4-64, FMVSS 571.108 S5.7 SAE J1395 4-85, J590b 10-65, MCLA 257. 697(b)

YELLOW: Front turn signal is inoperative

YELLOW: Indicators that fail to cancel by either steering wheel rotation or manual operation.

FMVSS 571.108 S5.1.1.5

RED: One rear turn signal inoperative

Hazard Lamps FMVSS 571.108 S5.5, SAE J9101-66, and J945 2-66, MCLA 257.698a, MCLA 257.1815

RED: Any lamp inoperative in the 4-way hazard warning system

Backup Lamps

Vehicles shall conform to the SAE Standard J593c Backup Lamps 2-68. FMVSS 571.108 S5.3.1.5, MCLA 257.698(3)

YELLOW: No backup lights

LIGHTING AND ELECTRICAL (cont.)

Tail Lights /Stop Lights

<u>Vehicles less than 80 inches width whose GVWR is 10, 000 pounds or less, manufactured after 9-1-93 shall be equipped with a high-mounted stop lamp. FMVSS 571.108 S5.7, SAE J1398 5-85, SAE J585e 9-77, FMVSS 571.108 S5.1.1.27, MCLA 257.1815, 257.686, 257.697b</u>

RED: No stoplights or taillights

RED: Vehicles less than 80 inches and under 10,000 pounds GVWR, with no high mounted

stoplight

RED: Any tail or stop light that fails to comply with 49 CFR 571 or MCL 257.698

<u>Clearance, Identification, Marker and Strobe Lights</u> *FMVSS 571.108 S5.7 J592e 7-72, MCLA* 257.688, 257.698 (*J*), 257.1815, 257.1831

YELLOW: More than 3 clearance lamps; or combination of side marker and/or identification lamps are missing or fail to function

RED: Any strobe, flashing or oscillating light illegally displayed or improperly mounted on vehicle. Strobe lights roof mounted on vehicles 10,000 pounds or more shall be mounted approximately 6 feet from the rear of the vehicle. *MCLA 257.1831*

Exterior Lens/Color *MCLA* 257.689 257.690, 257.691, 257.1815

YELLOW: Exterior lens missing on any lamp **YELLOW:** Wrong color of illumination on vehicle

Critical Warning Gauges/Lights

RED: Any critical brake, telltale light, buzzer or gauge that fails to function. NST-SBI 12.02

School Bus Signal Lamps: General

Each school bus shall be equipped with a system of either:

- Four red signal lamps that conform to SAE Standard J887 7-64 or
- ♦ Both red and amber lamps installed in accordance with SAE Standard J887; except that each amber signal lamp shall be located near each red signal lamp, at the same level, but closer to the vertical centerline of the bus. The system shall be wired so that the amber signal lamps are activated only by manual or foot operation, and if activated, are automatically deactivated and the red signal lamps automatically activated when the bus entrance door is opened. FMVSS S5.1.4, (a), (b), (ii), (iii), MCLA 257.1817, 257.1819

LIGHTING AND ELECTRICAL (cont.)

Four and Eight Light Systems

YELLOW: No indicator light operation

YELLOW: No system monitor

RED: Red overhead flashing lamps are connected to service door or brakes

RED: Any overhead flasher lamp that is inoperable

RED: Any overhead flasher that does not alternate or operate sequentially as required

RED: Any crossing gate wired into the 4 light system

RED: Any light system with less than a 7" signal

Stop Arm/Crossing Control Devices

Each school bus shall be equipped with a stop signal arm meeting the requirement of *FMVSS* 571.131 S5.1 through S5.5, NST-SBI 12.03.

YELLOW: 1 lamp burned out

YELLOW: Lights flash when sign is in closed position

RED: Stop arm will not extend

RED: Both red lights are inoperable or out of sequence

RED: Sign is defaced and unreadable or a series of LED lights fail to illuminate rendering a

portion of the sign unreadable

RED: Stop sign extends when amber lights are activated

RED: Any mounting of the sign that fails to comply with FMVSS Standards

RED: If equipped, any crossing control device that fails to function properly NST-SBI 12.03

Electrical: General

YELLOW: Insulation is worn

YELLOW: Any wiring improperly connected

RED: Any required wire or electrical component charred or showing evidence of being burnt or

exposed NST-SBI 11.52

RED: Wiring is exposed or loose

Alternator

YELLOW: Belts are worn, loose or missing **YELLOW:** Less than 100 amp *MCLA* 257.1811(9)

Battery

YELLOW: Less than cranking capacity 500CCA for gasoline engines, 900 CCA for diesel

engine MCLA 257.1811 (9)

RED: Wiring is exposed or loose *NST-SBI 11-52*

LIGHTING AND ELECTRICAL (cont.)

RED: Battery will not activate the starter *NST-SBI 11.50*

RED: Battery not secured NST-SBI 11.53

Starter

RED: Transmission operates in forward or reverse gear while cranking - applies to automatic transmissions only *FMVSS 571.102*

Horn MCLA 257.706

YELLOW: Horn operation intermittent

YELLOW: Horn button not located in original position as provided by manufacturer. Effective

date July 1, 1989.

RED: Fails to function as designed *NST-SBI 12.01*